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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,680	11/30/2001	Judith A. Bayer	9999	7365
26890	7590	12/09/2005	EXAMINER	
JAMES M. STOVER NCR CORPORATION 1700 SOUTH PATTERSON BLVD, WHQ4 DAYTON, OH 45479			KRISCIUNAS, LINDA MARY	
			ART UNIT	PAPER NUMBER
			3623	

DATE MAILED: 12/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/998,680

Applicant(s)

BAYER ET AL.

Examiner

Linda Krisciunas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Melchione et al (US 5,930,764).

As per claim 1, 10 and 19, Melchione teaches generating data sets (column 5, line 34: “database” which contains sets of data) for use in customer relationship marketing (column 5, lines 55-57: “target optimum groups of customers for each marketing campaign conducted.”) comprising: specifying one or more variable groups (column 20, line 1-2: “summary variables”), where the group is a set of analytic variables with similar characteristics (column 20, line 4: “characteristics” whereby the data is sorted according to set characteristics it has in common); creating an analytic data set template containing one or more of the analytic variables selected from the specified variable groups (column 17, lines 62-67: “If the user requests and saves the keys, the user can then use the saved keys to pick up different set of fields (using the data extractor component of the database engine) at different times. Alternatively, the user can further reduce the set of keys (and save the new set, instead of, or in addition to the old set of keys) by applying additional criteria to the old set.” Where the data extractor is used as a template for entering search

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criteria.); and generating instructions to retrieve analytic variables contained in the template from the database (column 18, lines 24-30: The data extractor component of the database engine 40, which can execute alone or with the first key extract component, has the function of pulling the desired data from the database once the keys have been extracted. If it executes with the first component, the keys may not even have to be saved on a table but passed through host program variables from previous SQL statements.”).

As per claim 2, 11 and 20, Melchione teaches the database contains operational data (column 18, line 61: “data from a household and/or customer” where household and customer data represent operational data) and the analytic variables are derived from the operational data (column 20, lines 1-2: “flags and summary variables at the household level” indicate the variables are derived from the operational data sets of customer and household data).

As per claim 3, 12 and 21, Melchione teaches operational data comprises transaction data (column 28, line 4: “transaction reporting” indicates transaction data is eligible for searching in the database).

As per claim 4, 13 and 22, Melchione teaches the analytic variables are comprised of primitives (column 8, lines 12-13: “three-tier hierarchy” which is equivalent to a primitive which is a decision tree classifier as it performs the identical function in substantially the same manner with substantially the same results) and conditions (column 29, lines 22-23: “positive conditions”).

As per claim 5, 14 and 23, Melchione teaches the primitives are base variables (column 8, lines 11-14: “three-tier hierarchy so that it can be accessed

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selectively at household, customer, and account levels” where the base variables are represented by household, customer and account level).

As per claim 6, 15 and 24, Melchione teaches the conditions are predicates, aggregates or functions (column 22, lines 49-60 where the condition of geographic location is selected and the system selects those that meet the condition. Performing this function is representative of an aggregate which calculates and provides the value required).

As per claim 7, 17 and 25, Melchione teaches the specifying step (a) comprises performing a smart variable definition that allows the user to define multiple analytic variables that are variations on a base variable (column 22, lines 10-20: “n general, when on an account path the user will specify not only product related conditions using variables that are totally dependent on the account/product, such as financial (account balance, amount of transfers, etc.) and descriptive (open date, marketing status) variables, but also other conditions using variables that are indirectly related to the account, such as organization level, geographic location, and so forth. Relationally, these other variables are part of foreign keys, and their presence in the account row establishes the relationship between the Account entity and the ORG or Geographic entities.” where multiple variables are used such as “geographic location” that are indirect to the base variable of “customer”).

As per claim 8, 18 and 26, Melchione teaches the creating step (b) comprises defining execution conditions for the analytic data set template (column 17, lines 55-61: “The second component (the data extractor

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component), picks up all the data items that the user wants. Both components can work together in a single job, or the user can save the keys for further processing at another time. Furthermore, certain types of queries need not extract keys at all, but can obtain the data directly without intermediate key extraction steps." where the keys are criteria or conditions for running the extractor.).

As per claim 9, 19 and 27, Melchione teaches the generated instructions contain variable transformation information, where transaction data from the database is identified, aggregated or modified to generate the analytic variables (column 33, lines 60-column 34, lines 1-2: "The branch managers and bank officers, in turn, use the CCIS 13 as a tracking and reporting management tool to automatically capture daily sales information. The branch managers and officers access the detailed sales transactions for each personal banker using the CCIS 13, and view the sales results for the various campaigns to track the performance and make adjustments in the campaigns as necessary. The branch managers and bank officers can also use the CCIS 13 to reassign leads among personal bankers and/or branches to optimize the use of marketing resources.").

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following art also teaches customer marketing based upon behavior data: Anderson et al (US 5,974,396), Fayyad et al (US 6,374,251), Sacki (US 2004/0039730), Tai (US 4,908,761), Dedrick (US 5,717,923), Nabe et

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al (US 6,901,406), "Data Mining Solutions and Customer Management" by Bill Bradway, Meridien Research Inc, December 1997; and "A Data Mining Support Environment and its Application on Insurance Data" by M. Staudt, J. Kietz and U. Reimer, Proceedings of the Fourth International Conference on Knowledge Discovery and Data Mining, August 1998, p.105-111.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Krisciunas whose telephone number is 571-272-6931. The examiner can normally be reached on Monday through Friday, 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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LMK

*LMK*  
*Dec 6, 2005*

  
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